

REMARKS

Reconsideration of this application and reexamination of the claims in view of the amendments herein are respectfully requested.

A. Status of the Claims

The listing of claims amends claims 24, 32, 40, 91, and 99. Claims 24, 40, and 91 have been amended to correct a grammatical error. Claim 32 is rewritten in independent form to incorporate the limitations of claim 24, from which it previously depended. Claim 99 is rewritten in independent form to incorporate the limitations of claim 91, from which it previously depended.

Claims 24, 27-29, 31-34, 36, 40, 81, 82, 91, 94-96, 98-102, 104, 105, 110, and 111 are pending. Of those, claims 81, 82, 104, and 105 were withdrawn. Applicants request rejoinder of the withdrawn claims once the independent claims are found allowable.

Claims 32-34, 36, 99-102, 110, and 111 were objected to as depending from rejected claims. In view of the amendments to claims 32 and 99 those claims no longer depend from rejected claims. Accordingly, those claims are allowable.

B. Claims 24, 27-29, 31, 91, 94-96, and 98 Are Not Anticipated

Claims 24, 27-29, 31, 91, 94-96, and 98 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Pass *et al.*, *The Journal of Infectious Diseases*, Vol. 180, pp. 970-975 (1999) ("Pass"). Pass reports the results of a Phase I randomized, double-blind, placebo-controlled trial with a cytomegalovirus (CMV) vaccine based on the envelope glycoprotein, gB, combined with a novel adjuvant, MF59. (Pass, abstract.) According to the Examiner, "[b]y administering Pass' gB to humans, DC-SIGN is bound

by gB and thus inhibits CMV infection. Therefore, Pass' method anticipates the instantly claimed invention." (Office Action at page 4.) Applicant respectfully traverses this rejection.

Rejected independent claim 24 recites "A method of treating a cytomegalovirus (CMV) infection of a human . . . the method comprising: administering to the human a molecule that specifically binds to the DC-SIGN receptor . . . to thereby treat the CMV virus infection." Rejected independent claim 91 recites "A method of inhibiting entry of a CMV virus into a cell of a human . . . the method, comprising administering to the human a molecule that specifically binds to the DC-SIGN receptor . . . to thereby inhibit entry of the CMV virus into the cell."

In claim 24 the CMV virus infection is treated by administering a molecule that specifically binds to the DC-SIGN receptor. In claim 91 entry of the CMV virus into the cell is inhibited by administering a molecule that specifically binds to the DC-SIGN receptor. Thus, in both of those claims the presence of the CMV virus is concomitant with the administration of the molecule that binds to the DC-SIGN receptor.

In contrast, in the study described in Pass, humans are injected with a CMV vaccine comprising gB and an adjuvant. (Pass at paragraph bridging pages 970 and 971.) The purpose of that immunization is to induce immunity in the humans to a subsequent infection by CMV. However, the patients who received the gB injection were not at that time infected with CMV. (See page 970, "Study population and enrollment criteria.") Thus, Pass does not disclose every element of the claims and does not anticipate the claims for that reason. Applicant submits that the anticipation rejection should be withdrawn.

Pass also does not render the claims obvious, because Pass does not teach or fairly suggest administering gB to a patient infected with CMV “in an amount sufficient to inhibit binding of the CMV virus to the DC-SIGN receptor present on a cell of the mammal, to thereby treat the CMV virus infection,” (claim 24) or “in an amount sufficient to inhibit the binding of the CMV virus effector molecule to the DC-SIGN receptor, to thereby inhibit entry of the CMV virus into the cell” (claim 91). If anything, Pass’s use of gB in a vaccine composition teaches away from the invention.

C. Claim 40 is Nonobvious

Claim 40 was rejected under 35 U.S.C. § 103(a) as allegedly obvious over Pass in view of Cunningham et al., *The New England Journal of Medicine*, Vol. 339(4), pp. 236-244 (1998) (“Cunningham”). According to the Examiner, “it would have been obvious to apply Pass’ method to an HIV patient susceptible to or infected with CMV,” and “[o]ne would have had a reasonable expectation of success that using Pass’ CMV treatment would have worked with HIV patients that are susceptible to infection with CMV.” (Office Action at pages 4-5.) Applicant respectfully traverses this rejection.

As described above, Pass does not describe a method of treating a HIV infection in a patient infected with HIV, but instead teaches a method of immunizing a patient against a CMV infection. Cunningham does not remedy that deficiency of Pass. Accordingly, Pass and Cunningham together do not render claim 40 obvious and this rejection should be withdrawn.

D. Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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